From boatanchors@theporch.com  Mon Jan 22 12:19:16 1996
From: w7ni@teleport.com (Stan Griffiths)
Subject: Re: 6AL5
Message-ID: <199601220618.WAA27188@desiree.teleport.com>

>
>Wait.  The 6AL5 (and 6H6) is a dual diode.   Heater, cathode, plate.  What's to go wrong?  It'll still work, even if the emission drops to practically nil.    :-)
>
>73
>
>Dube Todd                AB5AP             dube2@mci.newscorp.com
>

6AL5s and 12AL5s are used in 530/540 series Tek scopes as "disconnect diodes" in the sweep circuit.  I have seen them cause two different problems in that application.  1) Heater/cathode leakage which causes some 60 cycle modulation on the sweep and 2) gas, which causes them to not "disconnect" very well when they are reversed biased.  The small current that leaks backwards through a gassy 6AL5 can destroy the timing accuracy on slow sweep speeds, especially 5 seconds per division.  There were a couple of modifications that Tek developed and installed in the later 530/540 series that allowed pretty bad 6AL5/12AL5 tubes to still work.  (A, pardon the expression, SOLID STATE diode was wired in series to reduce the reverse current problem. :-)

Stan  W7NI@teleport.com

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From boatanchors@theporch.com  Mon Jan 22 12:19:16 1996
From: andy@taligent.com (Andy Heninger)
Subject: 6C4 and Others?
Message-ID: <v02130500ad296ea3ae24@[134.149.23.139]>

Sandy Blaize said
>  I've always had pretty good luch with 6C4's! ....

My Hammarlund HQ-100 has always been fussy about its 6C4 local oscillator. I've had this radio since the mid '60s - it was my novice receiver, and I hung on to it for sentimental reasons - and have always had to hand select a 6C4 for low drift and low hum FM modulation of the oscillator.   (Low drift is relative - you can choose between bad and worse, although to be fair, I don't think it's any worse than most other radios with a band-switched, wide range LO)

I fired the radio up last year, after several years of storage, and aside from dirty switches and noisy pots, the only problem it had was ... a bad 6C4. The oscillator would cut out at the bottom of the highest (10-30 MHz) band, and was excessively drifty every where else. I suspected a dirty band switch, tuning cap or tube socket, but a careful cleaning only helped a little. Another 6C4, and all was well.

-- Andy WB6MPT andy@taligent.com

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From boatanchors@theporch.com Mon Jan 22 12:19:16 1996
From: Rick Blank <rblank@legend.txdirect.net>
Subject: Re: 6M transverter for Tempo-one?
Message-ID: <199601220732.BAA25842@legend.txdirect.net>

At 09:12 PM 1/21/96 -0600, you wrote:
>Has anyone have any info on the Henry radio Tempo-one?is a 6 meter ssb
>transverter available?The Tempo-one and the Yaesu FT-200 are one in the same
>I think.My Tempo has a "RF OUT"jack on the back,which is the output of the
>driver stage before the final amp tubes.
>If you can give me some input please E mail to (amman@airmail.net)
>
> Thanks & 73's
> Robert KC5RYI
>
>

If I remember correctly, the inner workings of the two radios are darn near exact, but, the tuning dial mechanisms are the big difference...the Tempo 1 and a set of Yaesu FT-400 series "twins" (all tubes in all three of the radios, maybe some solly state diodes, but mostly tubes) were my first rigs...wish I still had the twins with their mechanincal filters, etc....

I don't remember a "Tempo 1" transverter being avaialable, but, the Yaesu one would probably interface with it correctly...never had one of those, but, I do have a cable for one!

At the time the Tempo 1 was sold, the most economical way to get on the air on VHF, if you had an HF rig, was to build a transverter, etc., and many rigs provided a low level RF output for just such use....

Of course, YMMV!

From boatanchors@theporch.com  Mon Jan 22 12:19:16 1996
From: Sandy Blaize <70401.134@compuserve.com>
Subject: 75A2 & 32V2 Information
Message-ID: <960122160837_70401.134_IHD99-3@CompuServe.COM>

Ah-Ha!!  The infectious bug "Boatanchoritis" has struck again!
Be warned there is no cure.  Some of the side effects:
1.) Browsing book fairs and hanfests for old musty books and manuals.
2.) A sudden interest in the "Antiques for sale" and "Radio-TV for sale" sections of the classified section of your newspaper.
3.) Your garage needs to be enlarged or cleaned out of non BA stuff.
4.) A wife who complains of "excessive junk" beginning to take over the hamshack and storage spaces.
Plus many, many others
73,
Sandy, W5TVW
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Boat Anchors collected, restored, traded and used!

From boatanchors@theporch.com  Mon Jan 22 18:51:53 1996
From: BWHITTEM_at_NCALAN1@mailgw.sanders.lockheed.com (BWHITTEM)
Subject: 814 vacum tubes.
Message-ID: <10414280@mailgw.sanders.lockheed.com>

is there any interest in some 814 tubes of 30s vintage.
they appear to be new unused.
a friend has them and has no use for them.
thanks,
barry
wb1edi

From boatanchors@theporch.com  Mon Jan 22 12:19:16 1996
From: Nina West <ninaw@u.washington.edu>
Subject: AN/URR-13A  US Navy Receiver
Message-ID: <Pine.A32.3.91j.960121204958.66514B-100000@homer18.u.washington.edu>

Was just given a AN/URR-13a receiver tuning 225-400 mc. (and one crystal
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

accessible from the front panel labeled 381.8 MHz (R)). The nameplate notes that it works from 115v 1phase 50-60~ and also calls itself a R266A/URR-13. It was built for the USN by National Company Inc (although it also lists the contractor as Federal Telephone & Radio Corp, contract NObsr-52304). It contains 13 tubes, mostly 6AK5W's. I assume that 225-400 is typically AM for military aviation use.

Can anyone tell me the story behind this unit, or even better, help me locate a manual and AC input plug for it? Also, when I get it running, what can I hear on 225-400 mc?
Thanks in advance for your help and my check is in the mail to theporch.

Fred Powell
c/o
ninaw@u.washington.edu

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From boatanchors@theporch.com  Mon Jan 22 12:19:16 1996
From: John Kolb <jlkolb@cts.com>
Subject: Re: AN/URR-13A US Navy Receiver
Message-ID: <Pine.SCO.3.91.960121221046.21078A-100000@sd.cts.com>

On Sun, 21 Jan 1996, Nina West wrote:

> Was just given a AN/URR-13a receiver tuning 225-400 mc. (and one crystal accessible from the front panel labeled 381.8 MHz (R)). The nameplate notes that it works from 115v 1phase 50-60~ and also calls itself a R266A/URR-13. It was built for the USN by National Company Inc (although it also lists the contractor as Federal Telephone & Radio Corp, contract NObsr-52304). It contains 13 tubes, mostly 6AK5W's. I assume that 225-400 is typically AM for military aviation use.

We used these aboard ship in the Navy in the early 60's for all ship to ship, ship to shore or ship to air communications. Used in conjuction with a TED-9 ? transmitter (25 -50 watts from a pair of 4X150's).

They can be set up xtal controlled, as you see, with the xtal behind the front door, or can be set for manual tuning. Think I saw something in the index about crystals for it. Modulation was indeed AM.

John Kolb  KK6IL

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From boatanchors@theporch.com  Mon Jan 22 12:19:16 1996
From: morriso@vifp.monash.edu.au (Morris Odell)

Subject: Re: Answer to lurker's private E-MAIL
Message-ID: <199601221039.VAA05975@vifp.monash.edu.au>

As Hank Van Cleef said:

<snip>

What you are trying to do with the
>microphone is get maximum power transfer from the microphone into the
>mike amplifier.  If it is a low impedance source (essentially, constant
>voltage) and you use a high impedance load (read "resistance" here), it
>won't create much current in the load, and thus won't transfer much of
>the energy that is available to drive the amplifier.  The same is true
>if you have a high impedance microphone and feed it into a low
>impedance load.  Once again, you don't get maximum energy transfer.  In
>short, the load has to handle both the current and the voltage that the
>source produces to get maximum transfer.

<snip>

I must say this was a much more lucid discussion of matching than I offered in my reply to Chris's question. Hank certainly covers the issue very well but I wonder whether we really are always trying to get maximum power transfer in the case of microphone matching. While it may be true that a conjugate match is desirable in an RF power amplifier to maximize power transfer to a load, in the case of a microphone the criteria for a design are to minimize noise pickup and to provide a load for the mic that defines the frequency response specified for the particular device and application. This may not necessarily be a "maximum power transfer" match for reasons that I touched on in my earlier reply. Somone else also mentioned that maximum power efficiency is not a primary concern at these signal levels, the input amplifier is easily designed to have enough gain for the low input level. The input device of that amplifier usually requires very little (in the case of a grounded emitter transistor) or no (in the case of a class-A tube) input power and as Hank observes, input power supplied by the microphone to an amplifier is dissipated in the biasing and/or matching resistances rather than the active devices.

73

Morris Odell VK3DOC
morriso@vifp.monash.edu.au

From boatanchors@theporch.com  Mon Jan 22 12:19:16 1996
From: bill@texan.frco.com (William Hawkins)
Subject: Re: Answer to lurker's private E-MAIL

Message-ID: <9601221649.AA15818@texan.frco.com>

Isn't language wonderful?  We started out discussing "impedance matching." Those two words cover at least two different concepts.  One is the conjugate match required to deliver power to the next stage of a power amplifier, or to an antenna in order to create waves in the Ether (well, it isn't ether, but it's a nice image of where the power goes).  Another is the matching required to couple physical motion (microphone or record player) into an amplifier.  It takes power to move the diaphragm of a microphone - not very much, but the air is definitely doing work over a period of time. But we do not want to reproduce the power required from the air, we want to reproduce the amplitude of the pressure waves.  Most transducers change pressure to voltage, so that is what we need to amplify.  All audio amps that I know about amplify voltage up until the last stage, where power is generated to drive another transducer, the speaker (and I don't know of any audio amp that tries to do conjugate matching to a speaker - the circuit is usually arranged to accurately reproduce the voltage, and deliver enough current to get the voltage at whatever impedance the speaker presents).

So voltage amplification does not require conjugate matching, but it does require some form of load matching.  The word "impedance" is used, but the resistance is what's used in practice.  A speaker has a 4 ohm "impedance" only at DC and resonance, but it is still useful to have a transformer that "matches" the relatively high plate resistance of the power amplifier tubes to that mythical 4 ohms.  Basically, it represents the worst case power that the amp has to deliver.  A crystal microphone has a high (unspecified) "impedance" that works very well into a grid and its "leak" resistor. But you can buy a transformer that will change it down to a nominal 600 ohms, primarily for use with long shielded cables whose capacitance would take the high frequencies out of a high impedance microphone.  You need another transformer at the amp to go back up to high impedance, to get the voltage needed at the input.  There is nothing critical about this match, it is only necessary to get within the voltage gain capability of the amp.

Now, a dynamic microphone is a little different.  There is more motion and lower voltage than a crystal element.  It is a low impedance device that can drive long wires without a transformer in the mic.  You do need a transformer at the amp, to get the voltage up.  There are not a lot of choices for impedances in microphone transformers, because the number isn't critical.  A dynamic mic does need a load resistor to control its behavior at resonance, if resonance is in the range of interest.

This may be more than anyone wanted to know, but I couldn't just say, well, there's power impedance matching and then there's voltage load matching.

Bill Hawkins

From boatanchors@theporch.com  Mon Jan 22 18:51:53 1996
From: James A Doty <jamesd@clark.edu>
Subject: Re: Answer to lurker's private E-MAIL
Message-ID: <Pine.HPP.3.91.960122113420.8113B-100000@clark.edu>

On Fri, 19 Jan 1996, Thomas A. Adams wrote:

> Hello James.
>
> One thing that this whole adventure had shown me is that a lot of folks out there are missing the whole idea of BOATANCHORS.
>
> Being a student, you're familiar with the Socratic method of teaching; a question is asked, and answered. The question and answer branch off into other areas, which leads to MORE questions and answers.
>

Actually I've learned quite a bit just sitting back and listening.  I don't have any specific questions so I felt it was best not to add to the load this mailing list already generates.  I've gotten an interesting text file on Drake radios and have learned a little more about vacuum tube compatability.  If and when I get into a new place with room for all my radio gear I intend to place my Drake next to (or near) my Kenwood and start playing with it again.  Then I'm sure I will be loading the questions up and looking for replies.

> Re. the problems of being a student; yeah, I know how THAT bit goes! Bread is tight. This is probably the ONLY valid exception to the "$12.00 won't break anybody" statement.

My biggest concern was not the $12.00 a year to subscribe to BA, but the costs I'm sure I will incure(sp?) when I finally have to pay the $140.00 or so a year just to be able to access the internet.  Since I have to pay for phone access to my AOL account I find that using AOL to access the internet is very low on my priority list.

I was just expressing my concerns since I will no longer have internet access as part of my tuition payments.

=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=

James A. Doty
KI7EL
Clark College
Vancouver, WA.
U.S.A.

I'm in a phone booth at the corner of Walk and Don't Walk.

From boatanchors@theporch.com  Mon Jan 22 18:51:53 1996
From: lkayser@WorldLink.ca (Larry Kayser)
Subject: AR-88's and RA-17's
Message-ID: <9601222159.AA15770@beacon.WorldLink.ca>

Way back, just a short while after Sputnik, I had occasion to spend some time in a radio monitoring facility.  Collins was not a supplier of record at that time.

The console of the facility was full of General Radio frequency standard and GR transfer oscillators and several each of AR-88's and RA17's.  My comments today are about the differences between these two rx's.

First the AR-88 was great for searching, audio gain down, rf gain up, with a speaker on both sides of the console.  The set, with good tubes, was just sensitive enough to work very well up to 20 Mc or so, at which point we were not really interested.  It was superb for prowling, looking for something different, a signal that did not fit in with the rest of the traffic going by as you carefully spun the dial.  With the crystal filter you could move in close to heavy duty signals and see if there was any weak cw hiding nearby, it was a great radio for looking between the Mark and Space signals of RTTY stations (850 Cycle shift) to see if there was any CW in the middle. You could tune that radio for hours, on days with snow static or thunder storms you learned pretty quick not to wear headphones.

The RA-17 was another matter.  This was the best receiver going for going somewhere to do a job and getting it done.  In the same era when DX-100's were the rage, just about every HF transmitter, commercial or amateur had a significant second harmonic component.  The RA-17 was great for this type of work, just plug one on the desired frequency, put another on the 2nd harmonic, in the wide filter position with the bfo on and wait.  One could use the waiting time to type up the boiler plate part of the infraction notices!  It was like catching fish in a fish bowel!  Same process for third harmonics.

Searching for spurious signals was a different matter.  One would put an RA-17 on the spurious signal, and then search for the source carrier with the AR-88 were you could "spin the band" very fast.  Once the two signals had been correlated it was normal to make sure the receivers were not giving you false information, you would use the opposite RX to cross check the signal on each frequency.  The other excellent use for the RA17 was the ability to search a tiny segement of spectrum.  There was frequently a requirement to look in a 10 Kc slot, with the RA17 this was easy to do, it was impossible to keep the AR-88 in such a small area.  The only way to do this with an AR-88 was to set up transfer oscillators at the upper and lower edges of the desired window and put up with the whistle as you approached the boundary.

Later I had occasion to work with the R389 and the R390 and R390A, I found them excellent technical receivers, so similar in effectiveness in performance in many ways to the RA 17.  I never did find a general purpose search receiver that equalled the AR-88 in performance(or for that matter in weight!).

73, Larry
va3lk wa3zia

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From boatanchors@theporch.com  Mon Jan 22 18:51:53 1996
From: Michael.J.Knudsen@att.com
Subject: Re:  AR-88's and RA-17's
Message-ID: <9601222231.AA03462@bock.ih.att.com>

Thanks for the great story about these classic rx.
Couple of comments....

I guess your RA17s were sensititve enough that you could tell from the background noise whether or not you had the MC dial set just right so you were getting full injection.  And the noise told you when the antenna preselector was tweaked up to the right spot.

I like my RA17 except for the uncertainty of the MC dial, and its narrow dynamic range, exacerbated by the lack of AGC to the RF amp tube (unless you have a Mk III).

I read that most AR88s went to England.  Can you say what country you were doing the monitoring from?  I've yet to see an RCA comm rx at a swap meet, tho I've seen some pretty rare stuff.

Liked the part about spy ops (?) sneaking CW between the 850 mark and space. That would require a darned stable tx as well as rx.  Sort of like the small planes that sneak thru the radar by flying just under an airliner.
73, mike k w9nrd

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From boatanchors@theporch.com  Mon Jan 22 12:19:16 1996
From: don merz <71333.144@compuserve.com>
Subject: BC-611s FT/FS
Message-ID: <960122154012_71333.144_DHB55-1@CompuServe.COM>

For Trade or Sale

2 BC-611-F Walkie Talkies. The only handheld to see service in WWII. Complete with canvas straps, antenna cover and manual photocopy. Lots of chips on smooth green paint but they don't look bad overall. Working when last powered up about 14 months ago. Genuine U.S. Signal Corp issue with 1945 contract date on both. Made by Calvin Mfg. Corp.

I'd like a substantial trade or cash sale for these. Possible trades: Navy RBB or RAL w/PS and cables. Complete SCR-506 Tank rig. Collins 75S3B. Pre war RCA receivers other than the ACR-136. Other trades considered.

Contact Don, N3RHT: 412-234-8819 EST weekdays or here...

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From boatanchors@theporch.com  Mon Jan 22 18:51:53 1996
From: Ray Johnston <visions@gate.net>
Subject: Boatanchor Want List - BAWANT.FORSALE
Message-ID: <Pine.A32.3.91.960122135848.12340B-100000@seminole.gate.net>

ATTN: Boatanchors List Recipients

I have taken over maintenance of the Want List from Andrew Dumas. There are many backlogged listings, so it will take me a little while to get the list updated and submitted.  I am also contemplating changing the name to BAWANTLIST or some such thing since the For Sale listings have been taken over by someone else.

In the future, additions and deletions from the list should be addressed to visions@gate.net with a subject line of 'BAWANTLIST Submission'.

73

Ray

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WANTED: Drake 1-A and Hallicrafters HA-20.
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Ray Johnston (visions@gate.net) Boca Raton FL USA

From boatanchors@theporch.com  Mon Jan 22 18:51:53 1996
From: wd4mgm@ix.netcom.com (CARL WHITAKER )
Subject: Re: Collins 51S1 filter ?'s, etc.
Message-ID: <199601222137.NAA04249@ix5.ix.netcom.com>

This is multipart MIME message.

--eurgcbaymmbycwebhdwnhbfgkedclj
Content-Type:text/plain; charset=US-ASCII; name="NCZ291F.TMP"

--eurgcbaymmbycwebhdwnhbfgkedclj
Content-Type: application/octet-stream; name="51s1#1.wpd"
Content-Transfer-Encoding:base64

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YXPPYXZhaWxpYWJsZYBvcHRpb25zgGZvcoBTU0KAdXNlLszMM4SEgEGAMzAwaHqAQ1eAZmlsdGVy
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gE8uSy4sgG5ld4BzdWJzY3JpYmVygHRvgEJBgGFuZIBsb3ZlgGl0IYCAKEV4Y2VwdIBmb3KAdGhl
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zMzM
--eurgcbaymmbycwebhdwnhbfgkedclj--
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From boatanchors@theporch.com  Mon Jan 22 12:19:16 1996
From: pbock@melpar.esys.com (Paul H. Bock)
Subject: Confession, apology, & comments
Message-ID: <9601221514.AA06562@syseng1.se.melpar.esys.com>

Regarding the question about low-Z mikes, impedances, etc., which was posted on Friday:

I "shot from the hip" without either thinking or researching and I erred.  My apologies to the group.

I went back to my old handbooks ("AM-FM Broadcast Operations" and "AM-FM Broadcast Maintenance," both by Ennes). Ol' Harold set me straight.  So, I'll correct myself as follows:

LOW-Z MIKE to HI-Z AMP:  The reason it usually doesn't work has already been stated by others, i.e., low-Z mikes have significantly lower output than hi-Z mikes, so the amplifier simply doesn't have enough amplification.  A good analogy is a stereo amplifier with turntable inputs; there were usually two inputs, one for a dynamic cartridge (low-level output) and one for a crystal or ceramic cartridge (high-level output).  A quick look at a schematic would show an extra preamp stage between the dynamic input and the main amplifier.

Crystal mikes are like crystal cartridges, i.e., high output, so the mike amp needs fewer stages.

600 OHMS, CABLE LENGTHS, ETC:  The reason for 600 ohms was stated by others, i.e., less degradation of frequency response in long cable runs.  Ennes sets an "upper limit" of cable length for a hi-Z mike as about 25 feet, but in a studio runs of up to 100 feet or longer are possible.  So, using lower impedance reduces the "shunting effect" of the cable capacitance and preserves

audio quality.  Using balanced lines reduces hum/noise pickup.

BTW, most broadcast mikes are actually 30, 150, or 250 ohms impedance and are transformer-matched to the mike preamp. However, the transformer secondary is "unloaded," meaning that a low-impedance mike is essentially looking into an open circuit. This is important with broadcast ribbon-type and combination mikes, because a reflected resistance load will seriously affect the response of the mike since it will affect the mechanical constants of the moving elements.  *SO,* my comment about "terminating the lo-Z mike in its characteristic impedance and shunting it with a hi-Z amplifier" *MIGHT* adversely affect the response - but I guess that would depend on the construction of the particular mike.

BRIDGING:  Another poster was correct that bridged lines in a studio are usually high-level.  The input Z of the bridging amplifier should be *TEN* times the line impedance, not five times as I stated.  If the amplifier input doesn't meet this requirement, it is still possible to bridge by using a "bridging pad," i.e., putting a resistor across the amp input which matches its input impedance, then putting equal-value series resistors in each leg of the balanced line between the shunt resistor and the line being terminated, such that the sum of the 3 resistors "looks like" at least 10 times the Z of the bridged line (6K for a 600-ohm line).  Given that this technique is pretty lossy, especially if the amplifier input impedance is fairly low, it is only suitable for bridging high-level lines (otherwise, the input level to the amp will be too small to work with).

IMPEDANCE:  Clearly explained by others, so I can't add anything of value.

73,

Paul, K4MSG

"Imagination is more important than knowledge." - Albert Einstein

.....but not when you're attempting to explain something technical. - K4MSG

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From boatanchors@theporch.com  Mon Jan 22 12:19:16 1996
From: pbock@melpar.esys.com (Paul H. Bock)
Subject: Re: D-104 Cartridges

Message-ID: <9601221404.AA03792@syseng1.se.melpar.esys.com>

>In reviewing John Staples' article *Curing that Valiant Sound* in the April
>1991 issue of ER, I noted the statement he made regarding new replacement
>cartidges for the D-104 mike.

>Does anyone know where these puppies may be obtained and for how much?

Amateur Elecronic Supply in Milwaukee et al has them in the catalog. You can buy either the crystal or the ceramic, but the crystal has better frequency response (I called Astatic and asked). The ceramic is intended for applications which require more ruggedness, as it's far less subject to shock damage and impervious to moisture, both of which will damage a crystal element (the other thing which will damage a crystal element is *HEAT*, so if you buy an old D-104 which has been stored in an attic, expect to have to replace the element). Last time I checked, either element was about $20 from AES.

73,

Paul, K4MSG

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From boatanchors@theporch.com  Mon Jan 22 18:51:53 1996
From: Lon Cottingham <76147.266@compuserve.com>
Subject: Re: D104 ELEMENTS
Message-ID: <960123002748_76147.266_HHE62-1@CompuServe.COM>

D-104 elements are available form the factory for under $20.00. I usually buy 20 - 25 at a time for around $12.00 each. Get several local hams together and order a bunch and save some bucks. 73 Lon K5JV

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From boatanchors@theporch.com  Mon Jan 22 12:19:16 1996
From: Bill Sorsby <bill.sorsby@dlep1.itg.ti.com>
Subject: Eico 753
Message-ID: <199601221741.LAA25381@dlep1.itg.ti.com>

Greetings,

After reading the remarks about awful drift of the Eico 753, I dug out the 753 I picked up a while back to check it out.

First though, I disassembled the front panel from the unit and used "Gunk" tar and bug remover on it to get rid of the yellow smoker's film covering everything. The stuff worked well. Also used it on the cabinet. "Gunk" didn't harm anything: the silk screen remained intact and none of the paint came off. With the clean front panel the 753 sure looked pretty cosmetically.

Inspection of the 753 revealed that some electrolytics in the transceiver chassis had been replaced. Also noticed that whoever put this 753 together didn't do a particularly good job. Noticed globby solder joints in abundance and a number of wires with insulation melted far away from the solder joint.

The VFO was horribly unstable on 20, but somewhat better on 40; an interesting result, since the VFO operates in 12 MHz region for 40 but in 9 MHz region for 20. Contact cleaner on the bandswitch didn't help much. Mechanically, the VFO appeared to be a sound design. Good size, rugged variable condenser and coil. Only things looking mechanically unsound were a couple of RF chokes sitting about 1/4" above the circuit board. Sure enough, pushing these coils ever so slightly with an insulated probe caused large frequency shifts. So, I removed these chokes and reinstalled them sitting firmly on the circuit board. Noticed also that one of the five PCB mounting holes had never had anything in it. Because of a clearance problem with one of the trim capacitors, apparently the kit builder had opted not to screw down the mid circuit board attachment point. I corrected that by soldering the ground on the circuit board to the chassis.

The corrections markedly improved VFO stability. Mechanically, the unit became very stable. Jiggling the bandswitch then had very little effect on frequency and even picking up the 753 and setting it on its side didn't change frequency more than about a hundred hertz or so. However, long term temperature stability was another matter. Eico used silver mica caps throughout the VFO and, as a consequence, VFO drift during warmup (which seems to take an hour or so) is a few kilohertz. No temperature compensating caps were foundeither on the schematic or on the VFO circuit board.) Additionally, when changing to a new VFO frequency band, it takes additional time for the new band to stabilize.

I did get the complete solid-state VFO kit for this 753. According to the included documentation, the Eico 753 solid-state VFO provides the highest frequency stability attainable from any ham band transceiver! Perhaps some rainy day when I have nothing better to do I'll install it. (Didn't happen to notice whether temperature compensating caps are part of the solid-state VFO kit.)

I can imagine that this particular rig contributed to the infamous drift stories about the Eico 753, largely because of the way its VFO had been built. Its construction suggests that perhaps Heath's decision to pre-build the LMO for the SB series rigs was a good one.

BTW, one aggravating problem remains with this 753 VFO; the main tuning condenser is very stiff and consequently the vernier reduction fine tuning mechanism works very poorly. (See my next post.) Any recommendations here would be appreciated.

Even with its faults, including the fact that the transmitter section is not currently functional, the Eico 753 is a somewhat interesting rig. Among other things its RIT pot is specially made with a fourth tap at the mid-point of the pot to determine the transmit frequency. Perhaps not as good a design as having a separate switch, but usable. Precise mechanical alignment of the pot, however, is essential to putting the transmitter on the correct frequency. Also noticed that the 753 IF filter is comprised of discrete crystals: a far cry from the sealed crystal filters in most rigs. And the 753 has an "AM" position where the product detector is turned and the balanced modulator is unbalanced to inject sufficient carrier for AM operation.

My conclusion on Eico 753 VFO stability is that it is worse than any other SSB rig I've got. (Some receivers excepted.) Perhaps the transistorized mod will help, although a comment received Friday indicated that at least one unit had drift even with the solid-state VFO. Overall, the 753 performance and features seem mediocre at best. I once heard a ham describe the Eico 753 as "the worst SSB rig ever made". Don't know if I'll ever have any real reason to use it but, cosmetically, this one is in excellent condition and is a pretty little rig. And, that's good enough reason to keep it for now.

Regards,
Bill Sorsby, N5BU

**********************************
bill.sorsby@dlep1.itg.ti.com
Views expressed herein are my own.
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From boatanchors@theporch.com  Mon Jan 22 18:51:53 1996
From: "Integration Area" <integrat@usr.com>
Subject: FS: Shasta/Beckman AC Voltmeter
Message-ID: <9600228223.AA822361371@robogate.usr.com>

I have a Shasta (division of Beckman) model 202A AC Voltmeter collecting dust. The thing looks awful - dirty and the paint is scratched a bit - and it does not work properly. The meter movement wiggles wildly, especially with a tap on the chassis with a stick. I does look complete inside, but no probe.

Does anyone want this thing? It is priced as a hamfest special. First silly offer accepted.

William Donzelli
integrat@usr.com

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From boatanchors@theporch.com  Mon Jan 22 18:51:53 1996
From: Charles Kadesch <103202.3412@compuserve.com>
Subject: FT: National RX
Message-ID: <960122192059_103202.3412_IHF68-1@CompuServe.COM>

For Trade:

A National receiver- Navy variant of the NC-100A
in good working order and nice shape.
Would like to trade it for a  transmitter.
Please e-mail direct. Thanks.
73
Chas
103202.3412@compuserve.com

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From boatanchors@theporch.com  Mon Jan 22 18:51:53 1996
From: Kim Herron <kherron@voyager.net>
Subject: Hammarlund HXL-1 for sale
Message-ID: <199601221921.OAA13200@vixa.voyager.net>

Hi Gang,

I have a very nice Hammarlund HXL-1 linear for sale.  It has installed in it the tuned input factory modification as well [factory install].  It has a Manual and the documentation for the tuned input network.  The tubes are in excellent shape, as it puts out 875 Watts with 60 watts of drive wired for 115 VAC.  The piece is very clean in and out [chassis looks like new], the front panel is very nice and the cabinet is nice as well.  It could stand to have the trim ring edge painted as there are some scratches [I'll throw in a can of matched paint for the ring and cabinet].  I would like $475.00 for the linear and that includes the shipping, manual, documentation and the tubes [572B Cetron's] pulled and shipped in a separate box.  Any takers??

KIM

From boatanchors@theporch.com  Mon Jan 22 12:19:16 1996
From: Bill Sorsby <bill.sorsby@dlep1.itg.ti.com>
Subject: How Do You Fix Binding Condensers
Message-ID: <199601221751.LAA27749@dlep1.itg.ti.com>

Greetings,

Several of the radios I've worked on recently seem to have very stiff variable condensers in them.  What solutions have been found for this condition?  I've used WD-40 and silicone lubricant with limited success.

Presumably, the condition is caused by a breakdown of the original lubricant in the bearings or bushings, but how does one go about remedying it, since none of these things were really designed to be taken apart?

Any help appreciated.

Regards,
Bill Sorsby, N5BU

**********************************
bill.sorsby@dlep1.itg.ti.com
Views expressed herein are my own.
**********************************

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From boatanchors@theporch.com  Mon Jan 22 18:51:53 1996
From: Henry van Cleef <vancleef@bga.com>
Subject: Re: How Do You Fix Binding Condensers
Message-ID: <199601221935.NAA17444@zoom.bga.com>

As Bill Sorsby said
>
> Greetings,
>
> Several of the radios I've worked on recently seem to have very stiff
> variable condensers in them.  What solutions have been found for this
> condition?  I've used WD-40 and silicone lubricant with limited success.
>
> Presumably, the condition is caused by a breakdown of the original lubricant
> in the bearings or bushings, but how does one go about remedying it, since
> none of these things were really designed to be taken apart?
>

There is a bunch of stuff you can do.  If you are looking at the usual type of "Radio Condenser Co." cap used in home entertainment, there is a ball bearing at the front and an adjustable pin at the back. Take the cap off the radio, and soak the nose of it in lacquer thinner, which will soften the old petrified lubricant. Flush with hot water. I generally relube with 30-weight motor oil. You can disassemble the things by drilling out the rivets holding the ground brushes and removing them, then positioning the rotor outside the stator and loosening the rear bearing adjustment. Be sure to catch all the ball bearing balls. If you need to replace square loose balls in a bearing, or missing balls, you can get new ones in standard sizes (the originals were standard parts) from Small Parts in Fla.

On reassembly, fill the bearing with balls. I use automobile wheel bearing grease to hold them. Insert the rotor, and install the rear bearing with its adjustment. Install the rotor ground brushes, using small hardware, and adjust the rear bearing adjustment so that the rotor is centered in each stator. A little work with a set of feeler gauges will do this for you. There generally is a little slop in each of the stator mountings to help in this process. This is the way they were put together originally.

E.F. Johnson caps and some of the others are assembled with plain hardware; disassembly and reassembly are obvious. The rotor ground brushes should have no lubricant on them, and you'll need to adjust the bearing sleeves to center the rotor.

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***********************************************************
Hank van Cleef  vancleef@bga.com  vancleef@tmn.com
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From boatanchors@theporch.com  Mon Jan 22 18:51:53 1996
From: jml@spider.lloyd.com (Jim Lockwood)
Subject: Re: How Do You Fix Binding Condensers
Message-ID: <m0teT4V-000TrMC@spider.lloyd.com>

At 11:53 AM 1/22/96 -0600, Bill Sorsby wrote:
>Greetings,
>
>Several of the radios I've worked on recently seem to have very stiff
>variable condensers in them. What solutions have been found for this
>condition? I've used WD-40 and silicone lubricant with limited success.
>

A couple of ideas come to mind. Which one, if either, would be appropriate would be dependent on the particular situation. In offering these suggestions, I'm assuming that the capacitor bearings are in good condition, just dirty. (This isn't always a good assumption.....my Drake 2B "parts radio" came with a preselector variable in which the bearings were worn to the point that the balls were falling out!)

If the variable condenser can be easily removed and reinstalled: I would remove it and run it through the dish washer using a normal concentration of automatic dishwashing detergent.

If removal of the condenser is impractical: I would use spray carburetor cleaner through one of those small diameter application tubes to clean gunk out of the bearings. Two strong caveats: Wear eye and face protection and do this outdoors where ventilation is excellent. Also, cover any plastics, dial faces, meters, wax coated thingys...in short just about everything except the capacitor bearings. Carb cleaner will dissolve lots of things that you would rather that it wouldn't. It's main benefit is that it *will* dissolve hardened grease.

Whichever technique you use, the last step should be to relubricate the bearing surfaces. I use and get good results from white lithium grease, but any relatively thin grease should work fine.

73 and good luck,

Jim - km6nk

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From boatanchors@theporch.com  Mon Jan 22 18:51:53 1996
From: johnmb <johnmb@nando.net>
Subject: How Do You Fix Binding Condensers (fwd)
Message-ID: <Pine.SUN.3.91.960122143332.6032A-100000@bessel.nando.net>

I'd recommend blasting the bearing race with contact cleaner
(non-lubricating type) while rotating the condenser, then relube
with silicone lube (a la Rat Shack needle type applicator).
/john wb5oau/4

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From boatanchors@theporch.com  Mon Jan 22 12:19:16 1996
From: garland@MPS.OHIO-STATE.EDU (James C. Garland)
Subject: Interesting Ranger II problem
Message-ID: <01I0B16X79DS8WW20A@MPS.OHIO-STATE.EDU>

Hi fellow BAers,

Just when I think I've seen everything that can possibly go wrong with a rig, something new pops up. I took my fully-restored Ranger II off the shelf over the weekend to give it some use. It turned on and seemed to act normally at first, but when I turned the meter switch to the Plate position to dip the final there was a noisy arcing sound and smoke poured out of it. Upon investigating, I discovered that the rig worked just fine, except when I was trying to measure the plate current. I checked out the metering circuit and learned that the meter measures the voltage across a .51 ohm resistor in the B+ lead. The resistor checked out fine. I took the meter out of the Ranger, and it checked out fine.  I tried the rig with the meter out on the workbench, connected via clipleads, and the rig worked completely normally. I put it back in the Ranger and got the arcing and smoke.

Finally, I disassembled the meter and the problem was immediately diagnosed. The metal face plate of the meter attaches to the magnet assembly with two tiny metal screws. The magnet assembly is electrically connected to the negative meter terminal, which was connected to the B+ supply via the .51 ohm resistor. Thus, in normal operation, the meter face has 600 volts sitting on it, and my problem was caused by arcing through the bakelite housing of the meter case, between the face plate and one of the meter mounting screws.  The fix was simply to scrape away the carbon path and put some insulating tape behind the metal faceplate. (Whatever happened to the red glyptol I used to use for such things?)

In my forty years in ham radio, I never realized that meter faces were "hot." It's probably poor design practice to stick panel meters in a B+ lead.. One can arguably get away with it in a 500-600 volt circuit (though I wouldn't recommend it), but I shudder to think about the consequences of doing it on a 4KV amplifier power supply. Interestingly, the EFJ engineers piped the B+ around the Ranger chassis with ordinary hookup wire, which strikes me as just asking for trouble.

Jim W8ZR

From boatanchors@theporch.com  Mon Jan 22 18:51:53 1996
From: m.cartwright@cc.utexas.edu (Mark A. Cartwright)
Subject: Need Info / Curves for 7077, 7486, and 7768
Message-ID: <199601222228.QAA23820@sirius.cc.utexas.edu>

Hello,

I am doing some tweaking/re-building, and need more detailed info on these three tubes (7077, 7486, and 7768).  I have gleaned some from my GE tube books, but no curves...

Thanks, && 73.

markc@mail.utexas.edu

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From boatanchors@theporch.com  Mon Jan 22 12:19:16 1996
From: w7ni@teleport.com (Stan Griffiths)
Subject: Re: Newsgroups...
Message-ID: <199601220619.WAA27266@desiree.teleport.com>

On Jan 21, K1OIK said:

>For those devoted to BA $12 is cheap but I bet you get less than $50
>actual checks.
>
>Because:
>
>1. Hams are cheap.
>2. Why pay when there are so many other places to go that are almost as
>good.
>3. Newcomers will die off..

I'll bet you're wrong, Burt.

I know he got $12 because I sent him a check.  That leaves only $38.  How much did you send?

Stan W7NI@teleport.com

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From boatanchors@theporch.com  Mon Jan 22 18:51:53 1996
From: n5off@w5ddl.aara.org
Subject: NOVA B-29 Ice Recovery Attempt
Message-ID: <280870@w5ddl.aara.org>

Nova will air a 1 hr doc on Tuesday p.m., Jan 30 on the unsuccessful attempt to fly a recovered B-29 from the Greenland ice.  The plabe xxxxx plane was supposedly as left when it landed 40+ yrs ago, so maybe there will be some BA shots on the inside.

The attempt was made by the normally successful Darryl Greenameyer, but they made a boo-boo this time.  During taxi, a fire erupted in the rear of the plane (APU/fuel container) and the beast burned up on the ice with the crew lucky enough to get out with their skins. Big let down, but it should be a goo Nova.

xxx that would be "good" Nova.

73 de tom

---

From boatanchors@theporch.com  Mon Jan 22 12:19:16 1996
From: genewill@ordata.com (Gene A. Williamson)
Subject: QCWA offers BA Archives 1993-96
Message-ID: <199601221629.IAA03210@cobra.ordata.com>

Thanks to the unstinting efforts of Jack, W4PPT/M, the QCWA BBS now contains a complete 13MB+ archive of Boatanchor Reflector messages from 1993, 1994, 1995, and -- as we proceed into this new year -- 1996. Anyone interested in Boatanchors is welcome on the BBS . . . you do not have to be a Quarter Century Wireless Association member to call in. Phone number in Eugene, Oregon is 541-683-4181, 8n1, up to 14.4kbps. When you log on, choose (F) for File Menu, (A) Area change to Boatanchor Archives, (F) for Files listing; then (V) to View the README file. You'll be instructed to download a file of complete instructions and the 1993 and 1994 indexes, all of which are in ZIPped form (PKUNZIP.EXE is there, too, if you need it to expand those files). The 1995 index is being prepared now.

You're invited to visit QCWA's Web site as well -- http://www.efn.org/~qcwa. Since last July the page has grown from about 120KB of photo and text files to nearly 2.5MB. New in the last month is the Chapters On-Line! section, which offers each of our nearly 200 chapters an opportunity to have their own Web pages. You can read some of the columns and feature articles from recent issues of the QCWA Journal now, too. Photos continue to be submitted to become exhibits in the QCWA On-Line Amateur Radio Museum -- the world's first -- and you're invited to look around there as well.

73 Gene K7DBV        genewill@ordata.com
Webmaster, QCWA (http://www.efn.org/~qcwa)

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From boatanchors@theporch.com  Mon Jan 22 18:51:53 1996
From: GDentHouTX@aol.com
Subject: QUA Dr. Jones? - Spook BA Tombs Unearthed?
Message-ID: <960122142359_203651283@emout04.mail.aol.com>

..wire story from today's Houston Chronicle...

'Stay-behind' weapons stash catches up to CIA
U.S. apologizes for supplies hidden in Austria 50 years ago

"Fearful of a Soviet takeover after World War II, the United States hid at least 79 (!) weapons caches in Austria for anit-communist partisans.

The caches, containing machine guns, explosives, RADIO EQUIPMENT (emphasis mine!) and perhaps even gold, were part of a network of 'stay-behind' supplies tucked throughout Western Europe by the U.S. Central Intelligence Agency, the Boston Globe reported over the weekend.

Now the U.S. ambassador has had to apologize for not telling subsequent Austrian governments about the caches, which apparently have lain undisturbed for 50 years (!)..."

xxx - omitted to save bw - xxx

"For 10 years from the end of World War II, Austria was occupied by the four wartime Allies, with the country and the capital of Vienna subdivided into American, Russian, British and French occupation zones.

Austria's independence was restored in May 1955.

The Globe report said the sites were believed to contain a wide assortment of weapons, from mortars and submachine guns to explosives and COMMUNICATIONS EQUIPMENT (final emphasis again mine!)..."

..lesse...what was introduced in 1955 besides the 51J-3 and 75A-4...oh, yeah the KWS-1!

KC5RNX QRV
73, Gerald
GDentHouTX@aol.com

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From boatanchors@theporch.com  Mon Jan 22 18:51:53 1996
From: Richard Biddle <rbiddle@madvax.mo.ti.com>
Subject: R-390A RF Module Gearboxes
Message-ID: <3103E747.101A@madvax.mo.ti.com>

Having begun the very interesting journey into the recently purchased R-390A, I need to ask some questions about the magic gearbox the "elves" put together :)

The R-390A appears to be of a 1967-68 vintage (I'll confess - the front label says Dittmore-Freimuth).  The manual TM 11-5820-358-35, 1961 printing, indicates the intermittent gear should switch the band switch between 07+000 and 08+000 mc positions.  Instead it switches between 08+000 and 09+000.  The cams appear to line up properly at 07+000, but one of the cams (.5-1 mc RF slug rack) does not match the drawings (fig 68) in shape.  The RF deck bandswitch appears to select the proper coils except where the band switching points are (i.e., after it does switch it is okay).  The radio apparently took a pretty good hit from UPS :(

Now for the $60K question - is the manual wrong or the radio?  On some bands I can get an enormous increase in signal by rocking the megacycle change switch between bands, so I suspect the alignment is off somehow. The manual says I should be able to turn the mc change counter-clockwise to halfway between 99 and 00 mc. It stops hard at 00 and between -963 and -972.

I do have receive on all bands and the second crystal oscillator is correct on all bands.

Thanks for the assistance.

Richard, KB5WLH
rbiddle@madvax.mo.ti.com

P.S. - I figure an answer to this question will be well worth the $12.00 in "repeater dues" I mailed off to Phil...

From boatanchors@theporch.com Mon Jan 22 12:19:16 1996
From: jeffa@ix.netcom.com (Jeff Anderson)
Subject: R-392 alignment questions
Message-ID: <199601221327.FAA02080@ix3.ix.netcom.com>

I've discovered that it has a few more tweakable items than are listed in the manual (purchased from Fair Radio).

For instance:

1. There is an extra pot in the IF stage. Rather than one hole with one pot (R532 - bias adjust), there are two holes with two pots. It looks as though the other pot controls the bias to the previous stage. Does anyone know the correct way to adjust these?

2. Some of the RF Stage tuned sections have two, not one, pairs of inductors/caps. For example, L204/C213 are not alone in their can - there's another L/C adjustment pair too. Are these aligned similarly to the original L204/C213 pair?

Oh, and finally, alignment of the Second Crystal Oscillator calls for setting the trimmer capacitor C435 for one-half capacitance. Which "direction" should the cap's slot point for one-half capacitance - top-bottom or left-right?

Thanks!

- Jeff, WA6AHL

From boatanchors@theporch.com Mon Jan 22 18:51:53 1996

From: "Randy Zelick" <RANDY@sbii.sb2.pdx.edu>
Subject: Re: R-392 alignment questions
Message-ID: <1CAE05183@sbii.sb2.pdx.edu>

Hi Jeff,

I have a Stromberg-Carlson R392 also with the extra set of adjustable caps in the front end tuning coil assemblies. I just peaked them for max signal, but I don't know if this is best. Let me know if you find out. Mine does not have the extra pot on the I.F. chassis.

I did not take apart the osc chassis to see how the trimmer is oriented and thus determine 1/2 capacitance position. Rather I just set it according to the photo in the manual.

Have fun,

=Randy=
Randy Zelick
Dept. Biology
Portland State University
P.O. Box 751
Portland, OR 97207
503-725-3086 (voice), 503-725-3864 (fax)

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From boatanchors@theporch.com  Mon Jan 22 18:51:53 1996
From: Michael.J.Knudsen@att.com
Subject: R390A Inputs and Alignment?
Message-ID: <9601222302.AA03478@bock.ih.att.com>

Last nite I sold one of my two R390As (to another BA List member, so I guess it's OK :-), and then got to tinkering with my remaining set.  I've had the List turned off for a couple weeks during vacation, so sorry if these just happened to be discussed while I had the mail suspended.

It's been said that the R390A's front end performs better if you go in thru the balanced antenna jack, even if you just feed the ground of your unbalanced feed into one side.

So I made up an adapter to do that (had to trash one female side of a T-adapter) from my unbalanced coax.  What I got was:

1. About 6 dB more signal, after re-trimming the antenna.
So far, so good.

2. The antenna trimmer peak moves radically on some bands compared to the single-ended unbalanced input position (well, not really surprising). This means you have to decide which antenna hookup you'll be using when you align the foremost coil slug in the RF racks to center the trimmer peak.

3. I got cross-modulation sums -- local BC stations at 1000 and 670 KC added up to a pretty solid 1670 KC signal. Never got that on the single-ended input. And the balanced input was supposed to *increase* front-end selectivity. Instead, the added 6 dB seems to have pushed the RF amp into overload. I didn't check for the cross-mod products down around 800 KC that the SP-600 is noted for; have to do that in daylight.

4. The foremost coil in each of the 6 RF slug racks has two trimmer caps. The front cap never did much when aligning from the unbalanced input. I expected it to do something for the balanced input. But it still has no effect, not on any of the 6 bands. Is that trimmer there to pad the cost-plus military contract, or is something wrong with my set (like the silver plating is worn off all 6 trimmers)? I don't think my sensitivity is down, but a double-tuned input circuit might cut down the cross-mod.

Please don't think I'm badmouthing this king of BA RX -- I just want mine to "be all it can be."

PS: I put in the Klerenomous hi-fi audio module I bought from someone on this List. It gives a lot more available power (I think the hi-fi speaker is saying uncle before the amp), a tad more bass, a bit less treble (usually but not always an advantage), and maybe a bit more hum when the noise limiter is turned way up.
And of course one of my 600-to-8 ohm RatShack xfrmers is freed up for some other RX. Anyway, my R390A now qualifies as a SW BC band cruiser, with the sound of a big walnut Philco console.

PPS: Someone had put the next larger size of spline-head screw in one of the main knobs. A good idea (at least if you have a set of Bristow wrenches, which I have from McMaster-Carr), but it really scared me at first -- thought the head was stripped (oh, boy!).

73, mike k w9nrd

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From boatanchors@theporch.com  Mon Jan 22 12:19:16 1996
From: azoth@netcom.com (Az0th)
Subject: RA-74-C/D Difference?
Message-ID: <199601221615.LAA25392@netcom6.netcom.com>

Hiyall,

Can anyone here tell me what the difference is between the RA-74 power
supply versions C and D?  This is the power supply used by the BC-779
series of receivers.  Was this supply used for other equipment as well?

Thanks es 73
de KF4FJH - RF Buchanan

From boatanchors@theporch.com  Mon Jan 22 18:51:53 1996
From: robert fowle <hammarlund@voyager.net>
Subject: re: RA-74-C/D Difference?
Message-ID: <199601222337.SAA00499@vixa.voyager.net>

>what the difference is between the RA-74 power
>supply versions C and D?

acording to the 1948 version of TM-11-866, ther is none.
the difference, is between the model #'s, and not the model alpha designation.
these differences are only in xfmr's T1,T2,&T3, and thats only in *input*
requirements.
hope this helps, if you need the exact differences, e-mail me, and i'll see
ya get what the manual says.
8-)
Robert Fowle
the HAMMARLUND historian
Ph. 517-789-6721
E-mail: Hammarlund@vixa.voyager.net
1215 Winifred
Jackson, Mich. 49202-1946

From boatanchors@theporch.com  Mon Jan 22 18:51:53 1996
From: David Metz <metzd@cfw.com>
Subject: Re: RA-74-C/D Difference?
Message-ID: <9601222350.AA15058@milo.cfw.com>

>Can anyone here tell me what the difference is between the RA-74 power
>supply versions C and D?  This is the power supply used by the BC-779
>series of receivers.  Was this supply used for other equipment as well?
>

FROM TM 11-866 C1  May 20, 1949:

"...POWER supply units RA74 b,c,d are physically and electrically interchangeable. However, RA 74d, differs from the other models in that the number of filter capacitors has been increased, additional resistors have been added, and preferred tube types are used.."

(ie. tubes are 5U4 and 5Y3 in the D and the L2 filter choke resistance is changed)

As far as other equipment usage, the TM makes no mention of "alternative" uses.

I hope this helps

73's dave metzd@cfw.com

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From boatanchors@theporch.com Mon Jan 22 18:51:53 1996
From: jcondon@polaris.cv.nrao.edu (Jim Condon)
Subject: Richmond Frostfest
Message-ID: <9601221927.AA34181@polaris.cv.nrao.edu>

An all-original, unmodified (!) DX-40 jumped off the table and walked out to my car. It needs a bath but otherwise appears to be in very good condition. However, it revealed yet another way in which a kit builder can do a poor job. After noticing that the plate tuning capacitor was a little wobbly because it was not screwed down well, I checked and found that EVERY screw in the whole rig needed to be tightened at least 1/4 turn. One screw that was supposed to be holding down a ground lug was so loose that the electrical contact must have been intermittent at best. The kit builder either had remarkably weak wrists or was deathly afraid of stripping threads.

Perhaps other anchorites can contribute warnings about unique problems that they have found in homebuilt kits.

Jim Condon, AD4YM
jcondon@nrao.edu

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From boatanchors@theporch.com Mon Jan 22 12:19:16 1996
From: Nick England <nick@cs.unc.edu>
Subject: Richmond VA hamfest report
Message-ID: <199601221708.MAA26420@altair.cs.unc.edu>

Here is a sketchy report on the Richmond VA hamfest - I hope others will chip in and fill in stuff I missed/forgot. This is a medium sized hamfest that seems to draw folks from Maryland/Virginia/North Carolina. About 300 tables of individuals plus a whole bunch of dealers selling new (ugh) gear.

| | | |
|---|---|---|
| NC-60 "special" - $10 | | |
| NC-155 | $40 | |
| NC-270 w/spkr | $175 | unsold |
| NC-109 | $40 | |
| NC-188 | $40 | |

no Hammarlund gear ??

unbuilt Heath HD-8999 UltraPro CW keyboard (I got it - no tubes but I'll bite on anything unbuilt)

| | | |
|---|---|---|
| Heath HR-10B/DX-60B | $100 | |
| DX-20 | $40 | |
| DX-20 | ? | |
| DX-40 | $40 | |
| several mono-banders | $40-50 | |
| junky HW-101 | $100 | unsold |
| SB-200 | $300 | |
| SB-220 | $700 | unsold |

| | | |
|---|---|---|
| Johnson Pacemaker | $170 | then advertised at $250 no sale |
| Ranger | $145 | good deal I thought |

Harvey-Wells T-90 nice condx $ ?

| | |
|---|---|
| Drake 2-B | $175 |
| 2-B w/ BQ | $125 |
| TR-4 | $300 |
| TR-4CW | $300 |

only 1-2 pieces of military gear. No R-390 or 390A.

several pre-war Hallicrafters (someone please fill in here)
SR-160 xcvr
Cyclone III xcvr
S-40
S-38E $50 unsold!

Knight-kit antenna Z-bridge (even though I'm a Knight-nut I didn't know these existed until I was looking at a 1955 catalog the other day and then poof - here one shows up looking like new for $5 :-)

Good collections of old magazines

Several old Heath catalogs (I was a minute too late)

Several old Walter Ashe catalogs (was on time for these)

only one 75A-4 - nice but $700 with one filter
couple of KWM-2's and linears

I also picked up some coil stock and a chassis for future construction projects - pretty reasonable assortment of tubes and other old parts from estates and TV repair shops.

All-in-all a pretty enjoyable day. I saw boatanchorites Richard W4CMG and Bill K4BWC.
73 to all,
Nick KD4CPL
nick@cs.unc.edu

From boatanchors@theporch.com  Mon Jan 22 18:51:53 1996
From: gc@fox.cen.com (Gary Chatters)
Subject: Re:  Richmond VA hamfest report
Message-ID: <9601221828.AA09930@cen.com>

>
\>Here is a sketchy report on the Richmond VA hamfest - I hope others will chip
\>in and fill in stuff I missed/forgot. This is a medium sized hamfest that

Thanks for the report Nick.  I was waiting for someone who had taken better notes than I do to give the first report.

A few additional notes:

\>Heath HR-10B/DX-60B   $100

Also saw a Heath CA-1 Conelrad Alarm.  Not useful these days, but it's something for the complete Heath collector.  I didn't get the price but the seller also had a Heath QF-1 Q multiplier that he was asking $20 for.

>
\>Drake   2-B      $175

I thought the $175 one was a 2-A, but not sure.

>
\>only 1-2 pieces of military gear. No R-390 or 390A.

Yes, I did not see any R-390(A)'s.

Swan

| | |
|---|---|
| 350C | $100 |
| 500? | $175 |

>
>Good collections of old magazines

I saw that G&G had several old RCA Receiving Tube and Transmitting Tube manuals of various ages, $15 each for most. He also had several of Terman's books, $20 each.

I refrained from adding to my collection of hollow-state equipment, unless you count the Lambda power supply: 125-325VDC at 200ma. Also bought a 6VDC Lambda supply.

There were a few guys with HP, Tek' and Motorola manuals. I made a couple of additions to my collection.

Gary

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From boatanchors@theporch.com  Mon Jan 22 12:19:16 1996
From: kf8at@detroit.ampr.org
Subject: sick KWM-380
Message-ID: <1398@detroit.ampr.org>

Just wondering why a KWM-380 is listed here, I don't believe it is heavy enough (with all those solid state devices in it) to qualify as a "boatanchor"!

73,
Floyd,
KF8AT

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From boatanchors@theporch.com  Mon Jan 22 12:19:16 1996
From: kf8at@detroit.ampr.org
Subject: sick KWM-380
Message-ID: <1448@detroit.ampr.org>

included message

The KWM-380 weighs a ton! I owned one for ten years and finally sold it a couple of years ago. (Now, I wish I hadn't.) My back still hurts from lugging the thing around.

Jim W8ZR

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Well, MY KWM-380 doesn't way that much anyway!

I must not be feeeding mine correctly!!

73,
Floyd, KF8AT

From boatanchors@theporch.com  Mon Jan 22 12:19:16 1996
From: QUACK <MUSCORJ@hsdwl.utc.com>
Subject: Sky Buddy
Message-ID: <01I0B4W9B1NM00OXBL@utrcgw.utc.com>

Yestyerday while perusing a local flea market a Sky Buddy was spotted on a shelf.  From a distance of 20' it looked like it was missing a knob.

I did not approach the owner as I wasn't in the mood to a. haggle, b. get treated like a num-nutz, c. whatever...

Question 1.  What is it worth if its missing parts and doesn't work?
2.  What is it worth if its missing parts and does work?

Thanks

Ron Musco
National Radio Club

From boatanchors@theporch.com  Mon Jan 22 18:51:53 1996
From: post@ouvaxa.cats.ohiou.edu
Subject: Re:Sky Buddy
Message-ID: <0099CC78.1C9E997C.14@ouvaxa.cats.ohiou.edu>

Ohio University Electronic Communication

Date:  22-Jan-1996 05:31pm EST

To:  Remote Addressee                    ( _MX%"boatanchors@theporch.com" )

From:  Richard Post                           Dept:  Instructional Media Services
POST                                        Tel No:

Subject:  Re:Sky Buddy

>a Sky Buddy was spotted on a shelf
I will assume this is the original Sky Buddy (Halli S-19) from pre WWII.
Has a black wrinkle finish and a circular bright metal dial.

>Question 1.  What is it worth if its missing parts and doesn't work?
>            2.  What is it worth if its missing parts and does work?

I've seen these go in the $25 to $70 range.  A missing knob is no big deal, rust on the chassis or modifications and extra holes in the cabinet are important and can turn these into parts units. Also the printing on the bright metal dial tends to wear with time.  The stationary pointer tends to get broken (but is fairly easy to replace with generic custom cut plastic). A radio that does not work has never stopped me from buying especially a radio as relatively simple as the S-19, but cosmetics are much more important in determining value than whether it works or not.  I certainly would have asked the price.  If one of the Halli lovers on this list has seen it since, assuming the price is reasonable and the cosmetics are good, it's probably gone.

73, Rich

Received:  22-Jan-1996 05:32pm

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From boatanchors@theporch.com  Mon Jan 22 12:19:16 1996
From: "Randy Zelick" <RANDY@sbii.sb2.pdx.edu>
Subject: Re: SSN- Collins Filter
Message-ID: <909529064F@sbii.sb2.pdx.edu>

Hi Joseph,

I'll be interested to learn how your new filter sounds. I modified a 51S-1 I owned previously (early winged) by removing the AM tuned circuit filter and replacing it with the correct-part mechanical filter. The AM sounded pretty bad compared with the tuned circuit, but adjacent channel heterodynes did disappear. My current 51S-1 (late round) I have left unmodified for this reason.

Cheers,

=Randy=
Randy Zelick

Dept. Biology
Portland State University
P.O. Box 751
Portland, OR 97207
503-725-3086 (voice), 503-725-3864 (fax)

From boatanchors@theporch.com  Mon Jan 22 12:19:16 1996
From: "Randy Zelick" <RANDY@sbii.sb2.pdx.edu>
Subject: Re: SSN-Collins Filters
Message-ID: <90A2860623@sbii.sb2.pdx.edu>

OOPS,

My response should have been addressed to Jim, not Joseph P. Sorry 'bout that!

=Randy=
Randy Zelick
Dept. Biology
Portland State University
P.O. Box 751
Portland, OR 97207
503-725-3086 (voice), 503-725-3864 (fax)

From boatanchors@theporch.com  Mon Jan 22 12:19:16 1996
From: Nick England <nick@cs.unc.edu>
Subject: Viking II adventures
Message-ID: <199601221741.MAA26612@altair.cs.unc.edu>

This may be of use sometime to someone reviving a Johnson Viking or similar AM rig.

1) I had to replace a lot of really out-of-spec resistors. Seems the wrinkly finish carbon composition types are particularly prone to going up a lot. And of course those paper things that used to be capacitors got replaced too. Even turned out the 8 mfd oil filled was shy about 6 mfd so it got replaced as well. Luckily all the chokes & xfmrs were OK.

2) Got CW working OK, but power output was only about 75 watts from the pair of 6146's. Turns out I had tuned to the 2nd harmonic. The Viking I and II have a nifty continuous tuning final tank - it uses a roller inductor. As I tuned up, I had skipped over the first resonance because of dirty contact to the coil. Moral - clean up the tarnish on them roller inductors, and look at the output on your scope ! I had cleaned

about 1/8 inch of accumulated crud off the chassis, but never got
around to really cleaning up the roller inductor - wrong move.

3) This rig had the Johnson keying sequencer mod added - I just got info from
Richard W4CBG on this. took me a little tracing to figure out what
was happening with the grid-block keying mod.

4) Biggest problem was the Audio Oscillator (err, modulator). I had big time
parasitics whenever I'd get the screen voltage over a certain point. My,
but them 807's put out a pretty blue light with 400 ma plate current....
This one drove me batty - I replaced all the bypass caps, stiffened up
the grounding, added a bypass cap at the modulator grid input xfmr
center tap, even disconnected the audio driver stages.
And I still had this big oscillation. Then I noticed a couple
of differences between the rig and the schematic. a) the schematic showed
a 22 ohm resistor at each 807 plate cap but the rig was lacking (hmmm,
says I that looks like a parasitic suppressor to me). Sure enough that
really tamed the rig a lot. But I still had some parasitics on voice peaks.
b) I removed the .01 mfd cap that is across the mod xfmr primary and that
did the trick. The schematic showed the .01 but the rig was lacking it until
I added it while re-furbing. The Viking I and other rigs lack it - is
supposed to roll of high-freq I guess but in my case was part of the problem.
In looking through some older handbooks, I came across an 807 modulator
design that had RF chokes in the grid leads and 220 ohm suppressors in the
screen leads and mentioned the tendency of 807 modulators to go off the
deep end. Yup!

Next step - modifying the 122 VFO for sequence keying and trying this
gadget out on the air.

73 & HAVE FUN,
Nick KD4CPL
nick@cs.unc.edu

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From boatanchors@theporch.com  Mon Jan 22 18:51:53 1996
From: "Cal J. Eustaquio" <ceustaqu@violin.aix.calpoly.edu>
Subject: Whoops! I meant '300, not '303.
Message-ID: <Pine.A32.3.91.960122120917.55542A-100000@violin.aix.calpoly.edu>

To those of you who answered my help request post, thank you! I realized
my mistake on the rcvr number. But I think that detail is possibly little
or no consequence. The 6AH6 still displays that funky voltage pinout. It
is now residing at Bernie (WA6HDY's) residence until furthur notice. I
will keep looking for the problem and keep you  all apprised. 73's. Cal. X=

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From boatanchors@theporch.com  Mon Jan 22 18:51:53 1996

From: kj7f@micron.net (Terry Dobler )
Subject: WTB - Heath HG-10
Message-ID: <m0teWQn-000QX5C@mis01.micron.net>

Good evening (in Idaho anyway),

I am looking for a Heathkit HG-10 VFO. It need not be mint but should be nice looking and either working or repairable. What have you?

Terry KJ7F

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From boatanchors@theporch.com Mon Jan 22 18:51:53 1996
From: pmills@cyberhouse.com (Phil Mills)
Subject: wtb: mike connector
Message-ID: <199601221837.MAA25856@ns.cyberhouse.com>

I need a two connector male mike plug for use with my B&W 5100. It has no keyway....just two pins slightly off center. If anyone has one to spare, please let me know.

thanks,
Phil
Phil Mills, AB5TH
pmills@cyberhouse.com
713-482-2763